

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

6460.2  
CHG 26

12/10/97

ELECTRONIC EQUIPMENT MODIFICATION HANDBOOK - NEXT GENERATION WEATHER  
SUBJ: RADAR (NEXRAD)

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CHAPTER 25. INSTALLATION OF A FRONT END ELECTROMAGNETIC  
INTERFERENCE (EMI) FILTER TO THE RADAR DATA  
ACQUISITION (RDA).

1. **PURPOSE.** This modification provides instructions to install an EMI preselected bandpass filter in the radar pedestal between the receiver protector and the low noise amplifier. This directive implements Engineering Change Proposal (ECP) F0032R00A00, Install Front End EMI Filter.
2. **DISTRIBUTION.** This directive is distributed to selected offices and services within Washington headquarters, the William J. Hughes Technical Center, the Mike Monroney Aeronautical Center, regional Airway Facilities divisions, and Airway Facilities field offices having the following facilities/equipment: NXRAD.
3. **WITHDRAWALS.** None.
4. **REFERENCES.** None.
5. **BACKGROUND.** This modification installs an EMI preselect bandpass filter in the radar pedestal. This installation will reduce the system susceptibility to interference from external sources.
6. **APPLICATION.** This modification applies to all FAA WSR-88D RDA sites.
7. **MATERIALS REQUIRED.** The following materials are required to modify each unit and are available in kit form, NSN 6660-K3-117-797A, consisting of the following:

<u>Description</u>	<u>Part No.</u>	<u>NSN</u>	<u>Quantity</u>
a. Bracket, Filter	2310003-301	5340-01-437-0677	1 each
b. Bracket, Filter	2310003-302	5340-01-437-0675	1 each
c. Bracket, Low Noise Amp	2100000-101	5340-01-436-8717	1 each
d. Bracket, Low Noise Amp	2100000-102	5340-01-436-8720	1 each
e. Cable Assy, 2W900	2200011-201	5995-01-436-8722	1 each
f. Cable Assy, 2W901	2200011-202	5995-01-436-8723	1 each
g. Adapter, Conn, Coax, RF	M55339/05-00057	5935-00-539-0851	2 each
h. Screw, Cap, Hex HD, CRE	MS35308-305	5305-00-688-2020	1 hd
i. Washer, Lock-Spring	MS35338-139	5310-00-933-8121	1 hd
j. Washer, Flat	MS15795-810	5310-00-582-5677	1 hd
k. Screw, Machine Pan	MS51958-64	5305-00-059-3660	1 hd
l. Washer, Lock-Spring	MS35338-138	5310-00-933-8120	1 hd

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Distribution: Selected Airway Facilities Field  
and Regional Offices, ZAF-605

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<u>Description</u>	<u>Part No.</u>	<u>NSN</u>	<u>Quantity</u>
m. Washer, Flat	MS15795-808	5310-00-619-1148	1 hd
n. Screw, Machine Pan	MS51957-23	5305-00-054-5657	1 hd
o. Washer, Flat	MS15795-803	5310-00-595-6211	1 hd
p. Washer, Lock-Spring	MS35338-135	5310-00-933-8118	1 hd
q. Nut, Plain, Hexagon	MS35649-244	5310-00-934-9748	1 hd
r. Preselect Bandpass Filter	2200010-xxx (site dependent on frequency used), see following list:		

<u>Site</u>	<u>Frequency</u>	<u>Part No.</u>	<u>NSN</u>	<u>Quantity</u>
Kauai, HI	2760 MHz	2200010-212	5915-01-436-3313	1 each
Kauai, HI	2860 MHz	2200010-233	5915-01-436-7247	1 each
King Salmon, AK	2800 MHz	2200010-221	5915-01-436-6513	1 each
King Salmon, AK	2705 MHz	2200010-202	5915-01-433-4205	1 each
Anchorage, AK	2800 MHz	2200010-221	5915-01-436-6513	1 each
Anchorage, AK	2875 MHz	2200010-236	5915-01-436-7257	1 each
Molokai, HI	2750 MHz	2200010-210	5915-01-436-3245	1 each
Molokai, HI	2848 MHz	2200010-230	5915-01-436-6527	1 each
Kohala, HI	2840 MHz	2200010-227	5915-01-436-6526	1 each
Kohala, HI	2760 MHz	2200010-212	5915-01-436-3313	1 each
Middleton Is, AK	2855 MHz	2200010-232	5915-01-436-7246	1 each
Middleton Is, AK	2885 MHz	2200010-239	5915-01-436-7263	1 each
San Jaun, PR	2855 MHz	2200010-232	5915-01-436-7246	1 each
San Jaun, PR	2810 MHz	2200010-224	5915-01-436-6521	1 each
Nome, AK	2855 MHz	2200010-232	5915-01-436-7246	1 each
Nome, AK	2885 MHz	2200010-239	5915-01-436-7263	1 each
Sitka, AK	2880 MHz	2200010-237	5915-01-436-7260	1 each
Sitka, AK	2800 MHz	2200010-221	5915-01-436-6513	1 each
Bethel, AK	2880 MHz	2200010-237	5915-01-436-7260	1 each
Bethel, AK	2800 MHz	2200010-221	5915-01-436-6513	1 each
South Shore, HI	2890 MHz	2200010-243	5915-01-436-7276	1 each
South Shore, HI	2855 MHz	2200010-232	5915-01-436-7246	1 each
Fairbanks, AK	2865 MHz	2200010-234	5915-01-436-7249	1 each
Fairbanks, AK	2913 MHz	2200010-259	5915-01-436-8690	1 each

8. **SOURCE OF MATERIALS.** Kits will be requisitioned by the Operational Support Facility (OSF) Logistics Section and shipped, at no cost to the site, from:

National Logistics Supply Center (NLSC)  
1510 E. Bannister Road  
Kansas City, MO 64131

9. **SPECIAL TOOLS AND TEST EQUIPMENT REQUIRED.** None.

10. **MODIFICATION TO BE PERFORMED BY.** Field maintenance personnel or as determined by the regional Airway Facilities division.

11. **WHEN MODIFICATION IS TO BE PERFORMED.** Not later than 60 days after receipt of this directive and kit.

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12. **ESTIMATED TIME REQUIRED.** A total of 4.0 staff-hours is required to accomplish this modification. The personnel performing this task will have maintenance and test experience with the WSR-88D RDA. Two technicians are required for this procedure.
13. **DISPOSITION OF SURPLUS PARTS.** Retain the old low noise amplifier mounting bracket and fasteners. If the new filter fails, the radar can be brought back to its original configuration.
14. **MODIFICATION PROCEDURE.** See attachment 1.
15. **TEST AFTER MODIFICATION.** None.
16. **RESULT OF MODIFICATION.** WSR-88D products supplied to the end user remain the same. This modification reduces system susceptibility to interference from external sources.
17. **CHANGES TO INSTRUCTION BOOK.** The revised pages required by this modification will be distributed by the OSF System Documentation Section and directly shipped from the NLSC at Kansas City, Missouri, to the WSR-88D sites and to the required FAA administrative offices. The following is a list of affected technical manuals:

<u>Technical Manual</u>	<u>Date</u>
TI 6460.1 V2 (EHB 6-501)	15 August 1995
TI 6460.1 V7 (EHB 6-510)	1 May 1996

18. **CHANGES TO INSTALLATION DRAWINGS.** None.
19. **CHANGES TO RECORDED DATA.** Enter this directive number, date, and chapter number in the appropriate FAA Form 6032-1, Airway Facilities Modification Record. Also complete the attached form, attachment 2, and forward to:

System Support Branch, Logistics Section  
WSR-88D Operational Support Facility  
3200 Marshall Ave., Suite 101  
Norman, Oklahoma 73072-8028

Fax number: (405) 366-6553

Or e-mail information to:

khare@osf.noaa.gov

20. **CHANGES TO TABLE OF CONTENTS.** This chapter will be included in the next revision to the table of contents for Order 6460.2.

21. **RECOMMENDATIONS FOR CHANGES**. Forward any recommendations for changes to this directive through normal channels to the National Airway Systems Engineering Division, AOS-200, Operational Support.

//SIGNED//

George W. Terrell  
Program Director for Operational Support

2 Attachments